(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 22 September 2005 (22.09.2005)

PCT

(10) International Publication Number WO 2005/088737 A1

(51) International Patent Classification⁷:

H01L 33/00

(21) International Application Number:

PCT/JP2005/004413

(22) International Filing Date: 8 March 2005 (08.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

2004-076313 17 March 2004 (17.03.2004) JP

(71) Applicant (for all designated States except US): DOW CORNING TORAY CO., LTD. [JP/JP]; 1-3, Marunouchi 1-chome,, Chiyoda-ku,, Tokyo1000005 (JP).

(72) Inventors; and

(75) Inventors/Applicants (for US only): NAKAYOSHI, Kazumi [JP/JP]; c/o DOW CORNING TORAY CO., LTD., 2-2, Chigusakaigan, Ichihara-shi, Chiba, 299-0108 (JP). MINE, Katsutoshi [JP/JP]; 7-20-2, Aobadai, Ichihara-shi, Chiba, 2990117 (JP). KOBAYASHI, Akihiko [JP/JP]; c/o DOW CORNING TORAY CO., LTD., 2-2, Chigusakaigan, Ichihara-shi, Chiba, 299-0108 (JP). (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

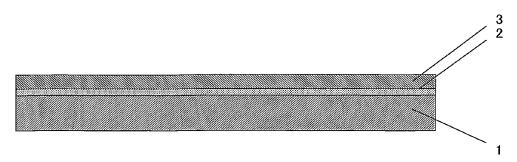
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METAL BASE CIRCUIT SUBSTRATE FOR AN OPTICAL DEVICE AND METHOD MANUFACTURING THE AFOREMENTIONED SUBSTRATE



(57) Abstract: A metal base circuit substrate for an optical device, which effectively reflects the generated light and radiates heat from the substrate, comprises a metal base substrate made from aluminum or aluminum alloy that supports an electric circuit via an insulation layer, wherein the insulation layer is formed from a transparent cross-linked silicone body, and the electric circuit is formed directly on the insulation layer. And an efficient method for manufacturing the aforementioned substrate comprises the steps of: a) applying a cross-linkable silicone onto the surface of a metal base substrate made from aluminum or aluminum alloy, b) cross-link

